



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number IST 218	Course Title iOS Application Development	Credits 4
Hours: Lecture/Lab/Other	Co- or Pre-requisite COS 102 or equivalent	Implementation Semester & Year Spring 2022
3 lecture / 2 lab		

Catalog description:

Introduces students to the tools and skills needed to create apps for iPhone and iPad. Students learn the Swift programming language and use it with Xcode to create apps on the iOS platform.

General Education Category:
Not GenEd

Course coordinator:

Meimei Gao, 609-570-3483, gaom@mccc.edu

Required texts & Other materials:

iBook "App Development with Swift"
<https://developer.apple.com/>

Course Student Learning Outcomes (SLO):

Upon successful completion of this course the student will be able to:

1. Use iOS development environment. [Supports ILG # 1]
2. Design user interfaces and use event-driven programming technology. [Supports ILG # 4, 11; PLO #1, 2]
3. Develop software solutions using programming skills including user input, variables, control structures, functions, methods, Strings, classes, lists and databases. [Supports ILG # 4, 11; PLO #1, 2]
4. Build iOS applications using Swift with Xcode. [Supports ILG # 4, 11; PLO #1, 2]

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for Mobile and Web Computing Certificate (PLO)

1. Analyze computer application requirements;

2. Design, write, test, and debug mobile and web applications.

Units of study in detail – Unit Student Learning Outcomes:

Unit I Introduction to iOS platform and Development Environment [Supports Course SLO #1]

Learning Objectives

The student will be able to:

- Describe the components of iOS development environment.
- Use iOS development environment.

Unit II Swift [Supports Course SLO #2, 3, 4]

Learning Objectives

The student will be able to:

- Work with variables, constants and data types.
- Use operators to create expressions.
- Create control structures.
- Use strings.
- Create structures and classes.

Unit III Use Interface Basics [Supports Course SLO #2, 3, 4]

Learning Objectives

The student will be able to:

- Build and manage basic use interfaces.
- Display information using common views.
- Set up controls and responses to control events.

Unit IV Navigation and Workflows [Supports Course SLO #2, 3, 4]

Learning Objectives

The student will be able to:

- Move from one view controller to another.
- Add and customize a navigation controller.
- Pass information from one view controller to another.
- Design a navigation hierarchy for an app.

Unit V Tables and Persistent Data [Supports Course SLO #2, 3, 4]

Learning Objectives

The student will be able to...

- Display lists of information using tables.
- Organize the files, structures, and classes in apps.
- Save and retrieve data.

Unit VI Working with the Web [Supports Course SLO #2, 3, 4]

Learning Objectives

The student will be able to...

- Request information from a web service.
- Use the information from a web service in an app.

Evaluation of student learning:

Specific methods for evaluating student progress through the course is up to the discretion of the instructor. Below is an example:

Projects/Assignments = 50% of the grade
Midterm = 20% of the grade
Final Exam = 30% of the grade